



TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ARCHITECTURE & BUILT ENVIRONMENT

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN ARCHITECTURE

DIPLOMA IN QUANTITY SURVEYING

EAR 2202: BUILDING TECHNOLOGY II

SPECIAL SUPPLEMENTARY EXAMINATION

YEAR TWO SEMESTER ONE

SERIES: JULY 2025

TIME: 2 HOURS

DATE: JULY, 2025

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

QUESTION ONE (30 MARKS)-COMPULSORY

- a) Define the following terminologies of a staircase.
- | | |
|------------------|----------|
| i. Stairwell. | (1 mark) |
| ii. Flight. | (1 mark) |
| iii. Pitch line. | (1 mark) |
| iv. Newel. | (1 mark) |
| v. Baluster. | (1 mark) |
- b) Define the term basements. (2 marks)

- c) List THREE methods of waterproofing in basements. (3 marks)
- d) With the aid of a diagram, explain FIVE forces acting on a basic retaining wall. (10 marks)
- e) Explain the FIVE main steps that must be carried out in the construction of a basement. (10 marks)

QUESTION TWO (15 MARKS)

- a) List THREE functional requirements of stairs. (3 marks)
- b) With the aid of a sketch, describe FOUR types of stairs. (12 marks)

QUESTION THREE (15 MARKS)

- a) With the aid of well annotated drawing, indicate the different parts of a door. (10 marks)
- b) Define any FIVE parts of a door indicated in (a) above. (5 marks)

QUESTION FOUR (15 MARKS)

- a) Define the term fireplace. (2 marks)
- b) Name FIVE functional requirements of a fireplace. (5 marks)
- c) Describe FOUR possible location for a fireplace and chimney placement. (8 marks)

QUESTION FIVE (15 MARKS)

- a) Windows form a major part of a building. List FIVE functional requirements of a window (5 marks)
- b) Label the various window elements in the diagram below. (10 marks)

